

TECHNICAL REVIEW DOCUMENT
For
DRAFT OPERATING PERMIT 21OPAD443

Colorado Interstate Gas Company, L.L.P. – Totem Natural Gas Transmission and Storage
Facility
Adams County
Source ID 001-1701

Issued: Date

I. Purpose

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the Operating Permit for the Dupont Terminal.

This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the original application submitted on January 26, 2021, responses to additional information requests, and inspection reports. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at www.colorado.gov/cdphe/airTitleV. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

The Colorado Interstate Gas Company, L.L.P. Totem Natural Gas Transmission and Storage Facility (herein, Source) provides compression to inject natural gas into the storage field and to compress withdrawn natural gas to transmission pipeline pressure. A water/hydrocarbon liquids dew point control plant removes water and liquid hydrocarbons from the gas stream during storage gas withdrawal phases. The facility consists of reciprocating internal combustion engines, a natural gas-fired heater, an ethylene glycol dehydrator, truck loadout of hydrocarbon liquids, a process flare, fugitive equipment leaks and insignificant activities.

The facility is located at 54200 E. 104th Avenue in Bennett, Colorado. This facility is located in the Denver Metro Area. The Denver Metro Area is classified as attainment/maintenance for particulate matter less than 10 microns in diameter (PM₁₀) and carbon monoxide (CO). Under that classification, all SIP-approved requirements for PM₁₀ and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. The Denver Metro Area is classified as non-attainment for the 8-hr ozone standard and is part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Part A, Section II.A.1. The 8-hr Ozone Control Area has been classified as a severe non-attainment area effective November 7, 2021.

There are no affected states within 50 miles of the plant. The following Federal Class I designated areas are within 100 kilometers of the plant: None.

This facility is categorized as a NANSR major stationary source (potential to emit ≥ 25 tons per year for VOC and NO_x). Future modifications at this facility resulting in a significant net emissions increase (see Colorado Regulation No. 3, Part D, Sections II.A.27 and 44) for VOC or NO_x, or a modification which is major by itself (i.e., a potential to emit ≥ 25 tons per year of either VOC or NO_x) may result in the application of the NANSR review requirements.

Based on the information provided by the applicant, this source is categorized as a minor stationary source for PSD as of the issue date of this permit. Any future modification which is major by itself (i.e., a potential to emit ≥ 250 tons per year) for any pollutant listed in Colorado Regulation No. 3, Part D, Section II.A.44 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

III. Applicable Requirements

Accidental Release Program – 112(r)

Section 112(r) of the Clean Air Act mandates a new federal focus on the prevention of chemical accidents. Sources subject to these provisions must develop and implement risk management programs that include hazard assessment, a prevention program, and an emergency response program. They must prepare and implement a Risk Management Plan (RMP) as specified in the Rule

The Source is subject to the provisions of Section 112(r) of the Federal Clean Air Act. 112(r) requires the submittal of a risk management plan (RMP), and an RMP was submitted.

Compliance Assurance Monitoring (CAM)

The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64 as adopted by reference into Colorado Regulation No. 3, Part C, Section XIV:

Points 002 and 003 have pre-control CO and individual HAP emissions greater than major source thresholds. However, post-control emissions are less than major source thresholds, and these units are not Large Pollutant-Specific Emission Units (PSEUs). CAM will not apply until renewal.

Point 007 has VOC, total HAP and individual HAP emissions greater than major source thresholds. However, post-control emissions are less than major source thresholds, and these units are not Large Pollutant-Specific Emission Units (PSEUs). CAM will not apply until renewal.

Point 010 is a flare controlling multiple emission units (the EG dehydration unit (point 008), one heater treater, one hydrocarbon liquids storage vessel, and two natural gas liquids storage vessels). The combined emissions from all of these units prior to the control device is greater than major source thresholds for VOC, total HAP, and individual HAP. However, post-control emissions are less than major source thresholds, so CAM will not apply until renewal.

All other emission units at the facility are either uncontrolled, or do not have pre-controlled emissions greater than major source thresholds, and therefore CAM does not apply.

Hazardous Air Pollutants (HAPs)

This facility is an area source of HAP, with facility-wide emission limits of 8.0 tpy for each individual HAP and 20.0 tpy of total HAP.

NSPS Subparts OOOO and OOOOa

These subparts include standards of performance for crude oil and natural gas facilities for which construction, modification, or reconstruction commenced after 8/23/2011 and on or before 9/18/2015 (Subpart OOOO), or for which construction, modification or reconstruction commenced after 9/18/2015 (OOOOa). Based on information in the application, this facility commenced construction prior to all applicability dates and has not been modified, therefore these subparts do not apply.

MACT Subpart DDDDD

This subpart includes National Emission Standards for Hazardous Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters at major HAP facilities. This facility is not a major HAP facility and therefore this subpart does not apply.

MACT Subpart JJJJJJ

This subpart includes National Emission Standards for Hazardous Pollutants for Industrial, Commercial and Institutional Boilers at area sources of HAP. This facility does not include any boilers. The heater H-1, and all of the insignificant activity heaters at the facility, do not meet the definition of boiler under the rule. Therefore none of the requirements of this subpart apply.

NSPS KKK

This subpart includes standards of performance for equipment leaks of VOC. The provisions of this subpart are applicable to natural gas processing plants, therefore this subpart does not apply.

NSPS Subpart Kb

Based on information provided by the source, Tanks T-1, T-2 and T-3 are subject to NSPS Kb. These tanks comply with the requirements to operate a closed vent system and flare.

NSPS Subpart JJJJ

The provisions of this subpart are applicable to manufacturers, owners and operators of stationary spark ignition internal combustion engines. Engines CG-1, CG-2 and CG-3 are four stroke lean burn (4SLB) engines over 1,350 horsepower manufactured after July 1, 2007 and are therefore subject to limits in Table 1 of Subpart JJJJ. EG-1 is a new 4SLB engine between 500 and 1,350 horsepower manufactured after July 1, 2007 and is also subject to the Table 1 limits. The emission standards and the testing, monitoring, recordkeeping and reporting requirements of Subpart JJJJ have been incorporated by reference into the operating permit.

MACT Subpart ZZZZ

This subpart includes National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). 40 CFR Section 63.6590(c)(1) states that new RICE located at area sources of HAP meet the requirements of Subpart ZZZZ by meeting the requirements of NSPS Subpart JJJJ, and no further requirements apply. CG-1, CG-2, CG-3 and EG-1 are therefore subject to no further requirements under Subpart ZZZZ.

MACT Subpart HH

This subpart includes National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. The definition of facility in this Subpart excludes the natural gas transmission and storage source category, and therefore no requirements apply.

MACT Subpart HHH

This subpart includes National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. This subpart is only applicable to major sources of HAP, and therefore no requirements apply to this facility.

Colorado Regulation No. 1

The applicable provisions of this regulation are incorporated by reference into this Title V Operating Permit. The engines are subject to Sections II.A.1 and II.A.4 and the waste gas flare is subject to Section II.A.5.

Colorado Regulation No. 7

This discussion applies to the version of Regulation No. 7 that was adopted 12/15/2022 and became effective 2/14/2023. The following provisions in Regulation No 7 apply, and are incorporated by reference into the permit:

Engines CG-1, CG-2, CG-3 and EG-2

- Part E, Sections I.A.1 and I.B.2 – requires oxidation catalyst on lean burn RICE
- Part E, Sections I.B.3, I.D.2.a, I.D.2.b, – general operating requirements for controls on engines
- Part E, Section I.D.4.b.(ii) [State Only] – requires oxidation catalyst on lean burn rice
- Part E, Section I.D.5 [State Only] – additional requirements for natural gas fired RICE. Emission standards in Section I.D.5.b and c, performance testing in I.D.5.d, monitoring in I.D.5.e, recordkeeping in I.D.5.f and reporting in I.D.5.g.

Company-Specific Requirements

- Part D, Section IV [State Only] – control of emissions from the natural gas transmission and storage segment. Requirements include: developing and implementing a company-wide plan (IV.B.3 through IV.B.5), Recordkeeping and reporting (IV.D.2), annual certifications (IV.D.5)

The following requirements in Regulation No. 7 do not apply to this facility:

- Part D – the following sections in Part D do not apply to natural gas transmission and storage facilities: I.C through I.F (storage tanks), I.G (natural gas processing plants), I.H (natural gas dehydrators), I.I (exemptions), I.J (compressors), I.L (leak detection and repair), I.M (loadout), II.B (general provisions), II.C (storage tanks), II.D (natural gas dehydrators), II.E (leak detection and repair), II.F (well production facilities), II.G (requirements for wells), II.H (requirements for midstream facilities), II.I (natural gas processing plants), V (inventory), and VI (pre-production)
- Part D, Section I.K – the facility does not include natural gas-driven pneumatic pumps and is not located in Weld County.
- Part D, Section III – the facility does not include any natural-gas actuated controllers
- Part E, Section I.D.3 does not apply to the permitted engines at this facility because they are subject to NSPS JJJJ standards (Section I.D.1.b)
- Part E Section I.D.4.c – no engines at this facility are specifically identified
- Part E Section II – the permitted engines at this facility are exempt from this section because they are subject to requirements in Part E Sections I.A and I.B (Section II.A.2.e)

- Part E Section II – heater H-1 at this facility is exempt from this section because it has total actual uncontrolled emissions less than 5 tpy NOx.
- Part E Section II – the process flare at this facility is exempt from this section because it is used to control VOC emissions (Section II.A.2.c)
- Part E Sections III.A and III.B – this facility is not specifically listed in these sections
- Part E, Section III.C – this facility is not located in Weld county

IV. Emission Sources

A. Emission Units Included in Construction Permit 13AD1124 Issuance 3 (Final Approval permit issued August 8, 2019)

1. Applicable Requirements

The following requirements are incorporated by reference into the operating permit

- Emission limits – incorporated
- Fuel consumption limits (engines) – incorporated
- Fuel consumption limits (heater H-1) – incorporated
- Natural gas throughput limit (dehydrator D-1) – incorporated
- Hydrocarbon liquid loading limit – incorporated
- Limit on waste gas flaring (flare F-1) – incorporated
- RACT requirements for point 008 and 011 – incorporated
- Operation and maintenance requirements - incorporated
- Periodic testing and sampling requirements – incorporated
- Minimum stack height requirements - incorporated

2. Emission Factors

Emission factors listed in the operating permit are from the underlying construction permit:

Engines CG-1, CG-2 and CG-3: emission factors are based on manufacturer values for NOx, CO and formaldehyde, and AP42 Table 3.2-2 (7/2000) for all other pollutants.

Engine EG-1: emission factors are based on manufacturer values for NOx, CO, VOC and formaldehyde, and AP42 Table 3.2-2 (7/2000) for all other pollutants.

Heater H-1: emission factors are based on manufacturer values for NO_x and AP-42 for all other pollutants.

Dehydrator D-1: emissions are calculated using the GRI-GLYCalc 4.0 model.

Loadout: emission factors from loadout are based on the methodology in AP-42 Chapter 5.2, Equation 1 (1/95).

Process Flare F-1: emission factors for NO_x and CO are based on AP-42 Section 13.5. Emission factors for VOC and HAPs are based on a HYSYS simulation analysis of the process stream.

Fugitive Equipment Leaks: Emission factors are from EPA-453/R95-017, table 2-4.

3. Monitoring Plan

The owner or operator is required to calculate emissions, monitor fuel and throughput consumption and complete periodic gas analyses in accordance with the requirements of the construction permit and the operating & maintenance plan. Permitted engines are subject to periodic testing, and combustion units are subject to periodic visual emissions observations.

4. Compliance Status

The Title V permit application indicates that the facility is in compliance with all applicable requirements, and the October 2022 inspection report indicates that the facility is in compliance with all applicable requirements.

V. Streamlining of Applicable Requirements

The 2 year record retention requirement in NSPS Kb was streamlined out in favor of the 5 year requirement in the general conditions of the operating permit.

VI. Insignificant Activities

Insignificant equipment listed in the application includes: produced water tank, heaters, K.O. vessels, and landscaping and site housekeeping devices.

VII. Alternative Operating Scenarios

The Division's current standard operating permit AOS language for natural gas engine replacements is included in the operating permit.

VIII. Permit Shield

The application did not request any permit shields.

IX. Environmental Justice Considerations

At the time of public notice, the Division is complying with the requirements of the 2017 Guidance for Incorporating Environmental Justice into the State of Colorado's

Environmental Permitting Procedures, which requires a consideration of enhanced public outreach for initial draft operating permits at facilities located in priority areas (which are not the same as DIC areas). This facility is not located in a priority area based on the information in CDPHE's Health Equity & Environmental Justice (HE&EJ) Data Viewer.

The following information is provided as a general overview for efforts currently underway at the Department and the Division.

I. CDPHE's Overall Commitment to Environmental Justice

As is the case in many states, Colorado has a legacy of historic policies, such as redlining and zoning laws, that led to racial and income segregation in housing. Low-income communities and communities of color were and are often located in close proximity to industrial areas, highways, and other pollution sources. The shadows of these housing and land use patterns persist today, with low-income communities and communities of color in Colorado continuing to face greater environmental health risks. The physical environment, where people live, work, learn and play, is also a determinant of health. An individual's environment can facilitate positive health and well-being or it can produce an unhealthy level of exposure to pollution, contaminants, and/or disease.

On July 2, 2021, Governor Polis signed the Environmental Justice Act into law. This act prioritizes reducing environmental health disparities in disproportionately impacted communities. It also includes climate-related provisions. Specifically, it recognizes that "all people have the right to breathe clean air, drink clean water, participate freely in decisions that affect their environments, live free of dangerous levels of toxic pollution, experience equal protection provided by environmental policies, and share the benefits of a prosperous and vibrant pollution-free economy."

A core component of the Environmental Justice Act is the requirement to systematically identify and reduce environmental health risks in disproportionately impacted communities. Correspondingly, CDPHE has established an Environmental Justice Program to support all of CDPHE, including the Division, in improving meaningful two-way engagement with low-income communities and communities of color. The goal is to ensure that environmental regulations and policy decisions reflect the communities they will affect, and that adverse environmental impacts are reduced through strategic decisions in regulations, policies, and permits. CDPHE is committed to being a national leader in the environmental justice field.

CDPHE has implemented a number of environmental justice focused actions, including:

- **Identifying and Mapping Disproportionately Impacted Communities.** In June 2022, CDPHE launched a new interactive environmental justice mapping tool, Colorado EnviroScreen. The tool shows areas that meet the

definition of disproportionately impacted community and more generally identifies areas with increased environmental health burdens and cumulative impacts. Colorado EnviroScreen is intended for use by permitting staff throughout the Department, including within APCD, for conducting screening and analysis to identify areas with potential environmental justice concerns.

- **Establishing an Environmental Justice Advisory Board.** Created by statute, the Advisory Board meets quarterly. It responds to environmental justice policy questions from the Governor's Office and CDPHE. For example, in 2022, the Advisory Board fielded a policy question on carbon capture, utilization, and storage from the Governor's Office. It also advises CDPHE on best practices for engagement with disproportionately impacted communities. On November 21, 2022, the Board launched a new environmental justice grants program to fund projects that avoid, minimize, mitigate, or measure adverse environmental impacts in disproportionately impacted communities, and to increase meaningful engagement of disproportionately impacted communities in rulemaking and permitting proceedings.
- **Creating the Environmental Justice Ombudsperson position.** Governor Polis appointed Marcus Howell as Colorado's first Environmental Justice Ombudsperson in February 2022. He reports directly to CDPHE Executive Director Jill Hunsaker Ryan and receives administrative support from the Environmental Justice Program, but is otherwise independent. His duties include advocating for and liaising with disproportionately impacted communities; working for improved relationships with disproportionately impacted communities; and overseeing CDPHE's response to complaints and inquiries about environmental justice matters. The Ombudsperson launched a new environmental justice complaint system on January 20, 2023.
- **Completing Environmental Justice Action Task Force recommendations.** After nearly a year of extensive community outreach, the 22-member Environmental Justice Action Task Force submitted its final recommendation to the state legislature, Governor's office, and CDPHE on November 14, 2022. The task force solicited community feedback from across the state, holding in-person and virtual meetings in English and Spanish, and receiving more than 300 written comments over the year. The task force listened to numerous presentations from community members and leaders. Its six subcommittees met for a combined 77 hours. The full report is available here. Several of the Task Force recommendations involve methods of incorporating environmental equity and cumulative impact analyses ("EECIA") into permitting decisions. If adopted by the legislature, these recommendations could significantly expand the Division's authority to incorporate environmental justice considerations into Title V permitting actions.

- **Enhancing Outreach to Disproportionately Impacted Communities.** CDPHE has substantially expanded its outreach and engagement with disproportionately impacted communities about actions and topics such as air quality, water quality, and solid and hazardous waste cleanup. As part of this broader commitment to meaningfully engage disproportionately impacted communities, CDPHE has implemented the Environmental Justice Act's requirements to engage disproportionately impacted communities in air quality rulemakings. These requirements include specific timelines for notice, ensuring specific methods of engagement, language justice (translation and interpretation) practices, providing plain language fact sheets, and holding multiple outreach sessions at different times of day and days of the week to ensure maximum accessibility. The APCD Climate Change Program, Regulatory Development team, Office of Innovations in Policy, Environmental Justice Program, and CDPHE's Office of Boards and Commissions have been providing enhanced community engagement opportunities for rulemakings with significant potential to secure benefits and reduce harms to disproportionately impacted communities. The Division has also employed the enhanced outreach practices in the Environmental Justice Act in other capacities even where there is no legal requirement to do so.

II. Environmental Justice in Title V Permitting

A. History, Background, and the Status Quo

A core component of environmental justice is meaningful community involvement. Since its inception, the Division's Title V permitting program has embodied that principle by providing all legally required opportunities for public comment. The Division adheres to all public notice procedures in federal and state statutes and regulations. The Division also accepts public comment on Title V permits for at least the minimum time required by state and federal law. If a member of the public requests a public comment hearing on a Title V permit, the Division works with Boards and Commissions staff to convene a public comment hearing presided over by one or more members of the Air Quality Control Commission. Finally, Division permitting staff provide responses to significant public comments received both in writing and verbally during public comment hearings.

The Division has also long recognized that it is important to go beyond these minimum public notice and comment requirements in some cases. Residents of disproportionately impacted communities face many additional barriers (including time, money, education, and language challenges) that make it more difficult for them to engage in the Division's ordinary notice and comment processes. As a result, in April 2017 CDPHE adopted Guidance for Incorporating Environmental Justice into the State of Colorado's Environmental Permitting Procedures. This guidance included an appendix with specific guidance for the Division. It outlines a process of prescreening, assessment, relevancy planning, enhanced outreach, permit

drafting, and evaluation. The guidance applies to initial applications for Title V operating permits.

The Division has adhered to the 2017 guidance since it was adopted, and is currently in the process of updating it. First, the CDPHE (internal-only) Health Equity & Environmental Justice (HE&EJ) Data Viewer, which was used for identifying permits in the screening process, is no longer being maintained and updated. It has been replaced with the external-facing, publicly available Colorado EnviroScreen interactive environmental justice mapping tool. Second, the Environmental Justice Act adopted a new definition of “disproportionately impacted community” that is substantially broader than the narrower criteria used to identify the most impacted communities in the previous internal HE&EJ Data Viewer, warranting further discussion about which areas should be considered in screening analyses. Finally, numerous new requirements and guidance documents have been created or are currently being considered at both the state and federal level around the substantive aspects of how environmental justice should be incorporated into air quality permitting generally, including Title V permitting.

1. Meaningful Involvement

Meaningful involvement of all people regardless of their race, color, national origin, preferred language, or income is a key component of environmental justice. Under the 2017 guidance and the Division’s ongoing practice, for facilities where environmental justice concerns are raised, a key aspect of the Division’s response is ensuring meaningful involvement of the impacted community through enhanced outreach practices.

2. Fair Treatment

Environmental justice incorporates not only meaningful involvement of disproportionately impacted communities, but also fair treatment of all people regardless of their race, color, national origin, preferred language, or income. In the context of air quality regulation, ensuring fair treatment generally involves ensuring that certain communities or populations are not exposed to disproportionately high levels of pollution that could present potential health risks.

Because Title V is a program that aggregates all state and federal requirements associated with facility operations that emit air emissions, it is not an emissions authorizing program. Title V permits are a critical tool for the Division’s enforcement and compliance staff to use in enforcing statutes, regulations, and permit terms. To aid this goal, many of Colorado’s Title V permits include compliance assurance measures, monitoring, recordkeeping, and reporting requirements built into them.

B. Next Steps and Moving Forward

The Division has made significant strides towards advancing environmental justice in its Title V permitting program to date, but recognizes more work is needed. Given the rapidly evolving nature of both state and federal legal requirements and guidance related to environmental justice in air permitting, the Division is working on updates to its 2017 Guidance for Incorporating Environmental Justice into State of Colorado Environmental Permitting Procedures. These forthcoming updates will reflect changes made in light of many recently released documents and new tools including:

- New requirements of and authority provided by the Environmental Justice Act (HB21-1266) (July 2021);
- U.S. Environmental Protection Agency (“EPA”) Legal Tools to Advance Environmental Justice (May 2022) with Cumulative Impacts Addendum (January 2023);
- Release of Colorado EnviroScreen version 1.0 (June 2022);
- EPA Interim Environmental Justice and Civil Rights in Permitting Frequently Asked Questions (August 2022);
- Final Recommendations of the Environmental Justice Action Task Force (“EJATF” or “Task Force”) (November 2022);
- EPA, EJ in Air Permitting: Principles for Addressing Environmental Justice Concerns in Air Permitting (December 2022); and
- Air Quality Control Commission rulemaking on enhanced permitting for facilities located in disproportionately impacted communities (rulemaking hearing scheduled for May 2023).

The updated guidance will outline a three stage process for stationary source permits, including Title V permits, that includes screening for environmental justice concerns, analyzing potential environmental justice concerns and mitigating potential adverse disparate impacts. The Division anticipates completing the updated guidance later in 2023.

The Division has also proposed new rules before the Air Quality Control Commission regarding permitting processes in disproportionately impacted communities. The rules were proposed on January 19, 2023. This rulemaking is required by the Colorado Environmental Justice Act, but the Division has proposed several provisions that go beyond the minimum statutory requirements.

The proposed rules would apply to both new and modified sources seeking construction permits and most Title V operating permit actions. The proposed rules articulate requirements for enhanced modeling and monitoring in disproportionately impacted communities and require permit applicants to include environmental justice efforts in their permit application. The Air Quality Control Commission is scheduled to hold a rulemaking hearing on the proposal in May 2023.

The Division will incorporate the final version of that rulemaking into its updated guidance document. The proposed rules would clarify and expand upon the Division's capacity to systematically build environmental justice into its Title V permitting processes in the future.

Facility-Wide Emissions

POINT AIRS ID	PERMIT	Description	EMISSIONS - Uncontrolled (tons per year)									EMISSIONS With Controls (tons per year)								
			PM10	PM2.5	H ₂ S	SO ₂	NOx	VOC	Fug VOC	CO	Total HAPs	PM10	PM2.5	H ₂ S	SO ₂	NOx	VOC	Fug VOC	CO	Total HAPs
002	13AD1124	CATERPILLAR G3516 TALE					32.0	16.3		114.0	20.9					32.0	8.2		22.9	6.2
003	13AD1124	CATERPILLAR G3516 TALE					32.0	16.3		114.0	20.9					32.0	8.2		22.9	6.2
004	13AD1124	CATERPILLAR G3506 LE					11.8	6.1		42.8	7.8					11.8	3.1		8.6	2.3
005	13AD1124	CATERPILLAR G3516 COMPRESSOR ENGINE SN: TBD					1.2	0.3		1.5	0.3					1.2	0.3		1.5	0.3
006	13AD1124	HEATEC, HCI-4010-40-G NATURAL GAS BOILER SN: TBD					2.4			2.4	0.1					2.4			2.4	0.1
007	13AD1124	200.0 MMSCFD ETHYLENE GLYCOL DEHYDRATOR					0.2	68.7		1.0	55.8					0.2	3.4		1.0	2.8
008	13AD1124	HYDROCARBON LOADOUT						4.3			0.1						0.2			0.0
010	13AD1124	Process Flare					3.5	301.0		19.0	53.1					3.5	15.0		19.0	2.7
011	13AD1124	Fugitives							18.5		1.7							18.5		1.7
FACILITY TOTAL			0.0	0.0	0.0	0.0	83.1	413.0	18.5	294.7	160.5	0.0	0.0	0.0	0.0	83.1	38.4	18.5	78.3	22.3

Facility HAP Emissions

			Emissions - uncontrolled (lbs per year)													
POINT	PERMIT	Description	Formaldehyde	Acetaldehyde	Acrolein	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	MeOH	224 TMP	H2S	TOTAL (tpy)		
002	13AD1124	CATERPILLAR G3616 TALE COMPRESSOR ENGINE SN: TBD	36578	2336	1436	123	114	11	51	307	699	70		20.9		
003	13AD1124	CATERPILLAR G3616 TALE COMPRESSOR ENGINE SN: TBD	36578	2336	1436	123	114	11	51	307	699	70		20.9		
004	13AD1124	CATERPILLAR G3606 LE COMPRESSOR ENGINE SN: TBD	13711	861	529	45	42	4	19	114	257	26		7.8		
005	13AD1124	CATERPILLAR G3616 COMPRESSOR ENGINE SN: TBD	463	43	27	2	2	0	1	6	13	1		0.3		
006	13AD1124	HEATEC, HCI-4010-40-G NATURAL GAS BOILER SN: TBD	4		0		0			104				0.1		
007	13AD1124	200.0 MMSCFD ETHYLENE GLYCOL DEHYDRATOR				9352	33145	5654	62893	523				55.8		
008	13AD1124	HYDROCARBON LOADOUT				15				132				0.1		
010	13AD1124	Process Flare				25477	40069	2885	25968	11710				53.1		
011	13AD1124	Fugitives				175	582	96	689	1936				1.7		
TOTAL (tpy)			43.7	2.8	1.7	17.7	37.0	4.3	44.8	7.6	0.8	0.1	0.0	160.5		
*Total Reportable = all HAPs where uncontrolled emissions > de minimus values																
Red Text: uncontrolled emissions < de minimus																

			Emissions with controls (lbs per year)													
POINT	PERMIT	Description	Formaldehyde	Acetaldehyde	Acrolein	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	MeOH	224 TMP	H2S	TOTAL (tpy)		
002	13AD1124	CATERPILLAR G3616 TALE COMPRESSOR ENGINE SN: TBD	7316	2336	1436	123	114	11	51	307	699	70		6.2		
003	13AD1124	CATERPILLAR G3616 TALE COMPRESSOR ENGINE SN: TBD	7316	2336	1436	123	114	11	51	307	699	70		6.2		
004	13AD1124	CATERPILLAR G3606 LE COMPRESSOR ENGINE SN: TBD	2695	861	529	45	42	4	19	114	257	26		2.3		
005	13AD1124	CATERPILLAR G3616 COMPRESSOR ENGINE SN: TBD	463	43	27	2	2	0	1	6	13	1		0.3		
006	13AD1124	HEATEC, HCI-4010-40-G NATURAL GAS BOILER SN: TBD	4		0		0			104				0.1		
007	13AD1124	200.0 MMSCFD ETHYLENE GLYCOL DEHYDRATOR				468	1657	283	3145	26				2.8		
008	13AD1124	HYDROCARBON LOADOUT				1				7				0.0		
010	13AD1124	Process Flare				1274	2003	144	1298	586				2.7		
011	13AD1124	Fugitives				175	582	96	689	1936				1.7		
TOTAL (tpy)			8.9	2.8	1.7	1.1	2.3	0.3	2.6	1.7	0.8	0.1	0.0	22.28		